UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF COMMERCIAL FISHERIES

# CALIFORNIA FISHERY MARKET NEWS MONTHLY SUMMARY

## April 1961

## Part II–Fishing Information*

Sea-surface temperatures, fishing and research information of interest to the West Coast tuna-fishing industry and marine scientists

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* Part I - "Fishery Products Production and Market Data" is issued by the Bureau of Commercial Fisheries, Market News Service, Post Office Building, San Pedro, California

## SCIENTISTS MEASURE SEINE DEPTH. COMMENT ON POLAROID GLASSES

Two scientists from the San Diego Biological Laboratory were aboard the purse seiner WEST POINT during a trip which extended from April 3 to April 27, 1961. This was the second of two trips made with the purpose of evaluating the use of sonar to locate and follow schools of tuna. Examination of the records and the evaluation are underway and will be reported later.

During the second trip, tests were made of an instrument designed by one of the scientists to record the depth reached by the seine as a function of time. This device was attached to the lead line of the net. The results must be considered preliminary, since this was the first model put into use and it was not accurately calibrated for depth. The first test revealed that the lead line took about six minutes to reach depth. The depth recorded in this case was about 26 fathoms. Further observations along this line will be made in June. Several of the instruments will be available and can be attached to various parts of the net. A more complete report will be made after that time.

The value of polaroid glasses in sighting and following schools of tuna was demonstrated during this cruise. Polaroid lenses reduce reflected glare and greatly increase the depth to which the mast man can see. Tinted polaroids are much more effective than ordinary sun glasses in increasing the visibility of fish under water. Untinted polaroids are superior to the tinted for increasing visibility. Their effectiveness could be further increased by mounting the lenses in goggles, or in some other way shading out side glare. The availability of untinted polaroid lenses can be determined by writing the Polaroid Corporation of America, Cambridge, Massachusetts.

## ISSUANCE OF 15-DAY TEMPERATURE CHARTS

Issuance of a 15-day temperature chart for April 16-30, 1961 marked resumption of distribution of the 15-day series which was suspended in October 1960. These charts cover the area of the albacore fishery (25° to 52° N. and offshore to 135° W.) and are issued from April through October as supplements I and II to the regular monthly series. Requests for this series should be sent directly to our San Diego address.

## TOPOGRAPHIC CHARTS NO. 12, 16 AND 19

Topographic Charts No. 12, 16 and 19 were printed in April. These charts show the character of the ocean floor in coastal areas off Panama, Colombia, Ecuador and Peru. Charts may be obtained from Inter-American Tropical Tuna Commission representatives at Terminal Island and San Diego, California, or by writing to our San Diego address.

## SEA-SURFACE TEMPERATURE CHARTS, EASTERN PACIFIC OCEAN APRIL 1961


Acknowledgements

The following organizations and stations contributed data for the April 1961 charts:

U. S. Weather Bureau, San Diego, California
U. S. Weather Bureau Ship Visitation Office, Long Beach, California
U. S. Naval Communication Station Balboa, Fort Amador, Canal Zone
U. S. Navy Branch Hydrographic Office, Honolulu, Hawaii; Seattle, Washington; San Francisco and Wilmington, California
U. S. Coast Guard, Port Hueneme Light Station, Port Hueneme, Califb rnia
U. S. Bureau of Commercial Fisheries, Biological Laboratories, Honolulu, Hawaii; La Jolla, California; Seattle, Washington
U. S. Bureau of Commercial Fisheries, Exploratory Fishing and Gear Research Base, Seattle, Washington
Hopkins Marine Station, Pacific Grove, California, by J. P. Balesteri
Humboldt State College by George Allen
Inter-American Geodetic Survey by Rene Cortes at Salina Cruz, Mexico; David Ortega at Manzanillo, Mexico; Romeo Valencia at Pt. San Jose, Guatemala; Azael Saldana at Pt. Armuelles, Panama; V. E. Castillo at Tumaco, Colombia; Gualberto Tapia at San Cristobal, Galapagos; Jose Lanchimba at La Libertad, Ecuador; A. Campos at Talara, Peru; R. Celis at San Juan, Peru
Inter-American Tropical Tuna Commission, La Jolla and Terminal Island, California; Piura, Peru

Kelco Company, San Diego, California
Newport Beach Lifeguard Service, Balboa, California
Oregon State College by Bruce Wyatt
Pacific Oceanographic Group, Nanaimo, B.C., by H. J. Hollister from observations by R. W. Collins at Quatsino Lightstation, J. A. Bournazel at Cape St. James Light, B. Stuart at Amphitrite Point Light, J. M. Hartt at Langara Island Light, personnel of the C.N.A.V. Oshawa
Scripps Institution of Oceanography, La Jolla, California by Margaret Robinson and Hans Klein
Ships Frances Salman, Trolleggen, Elin Haven, Besseggen, Kongsholm, Avila and Santa Maria

Charts

Figure 1.--Mean sea-surface temperatures (°F) derived from approximately 8000 observations. Squares show temperature at weather-ship stations. Numerals on shore are temperatures at coastal and light stations.

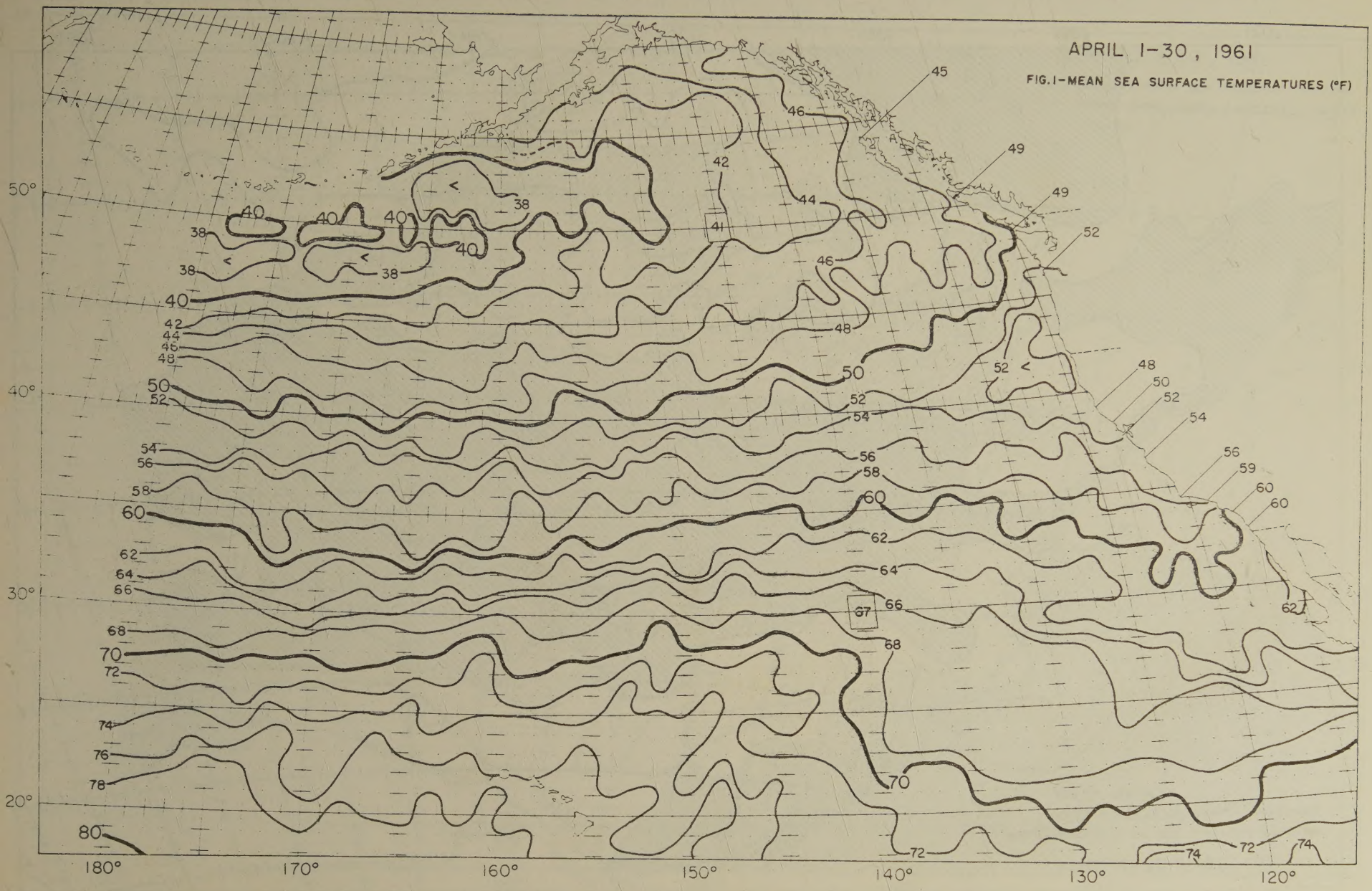
Figure 2.--Deviation of sea-surface temperatures (°F) from long term mean charts of H.O. 225. Hatched areas are colder than mean.

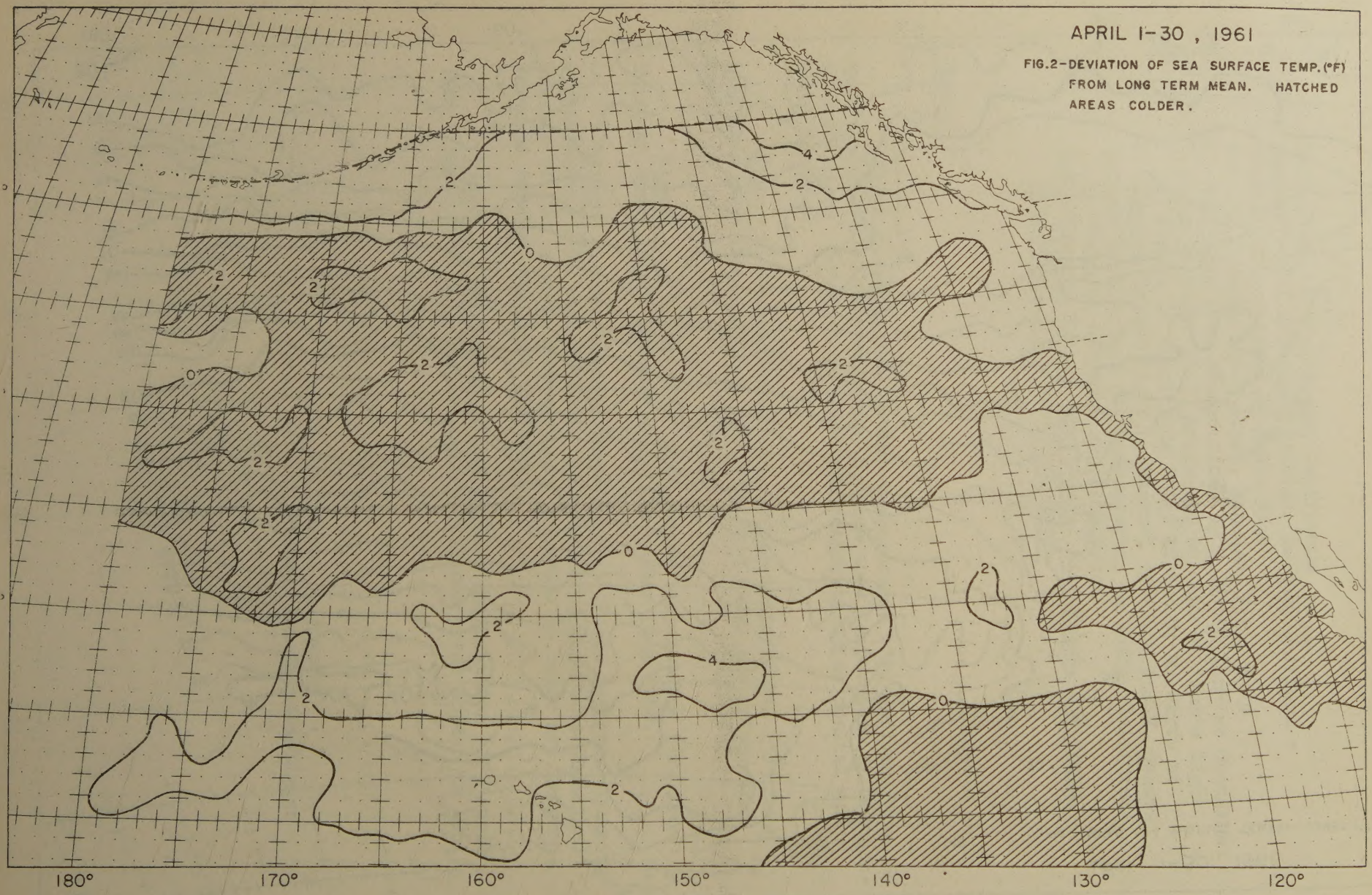
Figure 3.--Deviation of sea-surface temperatures (°F) from those of April 1960. Hatched areas are colder than 1960.

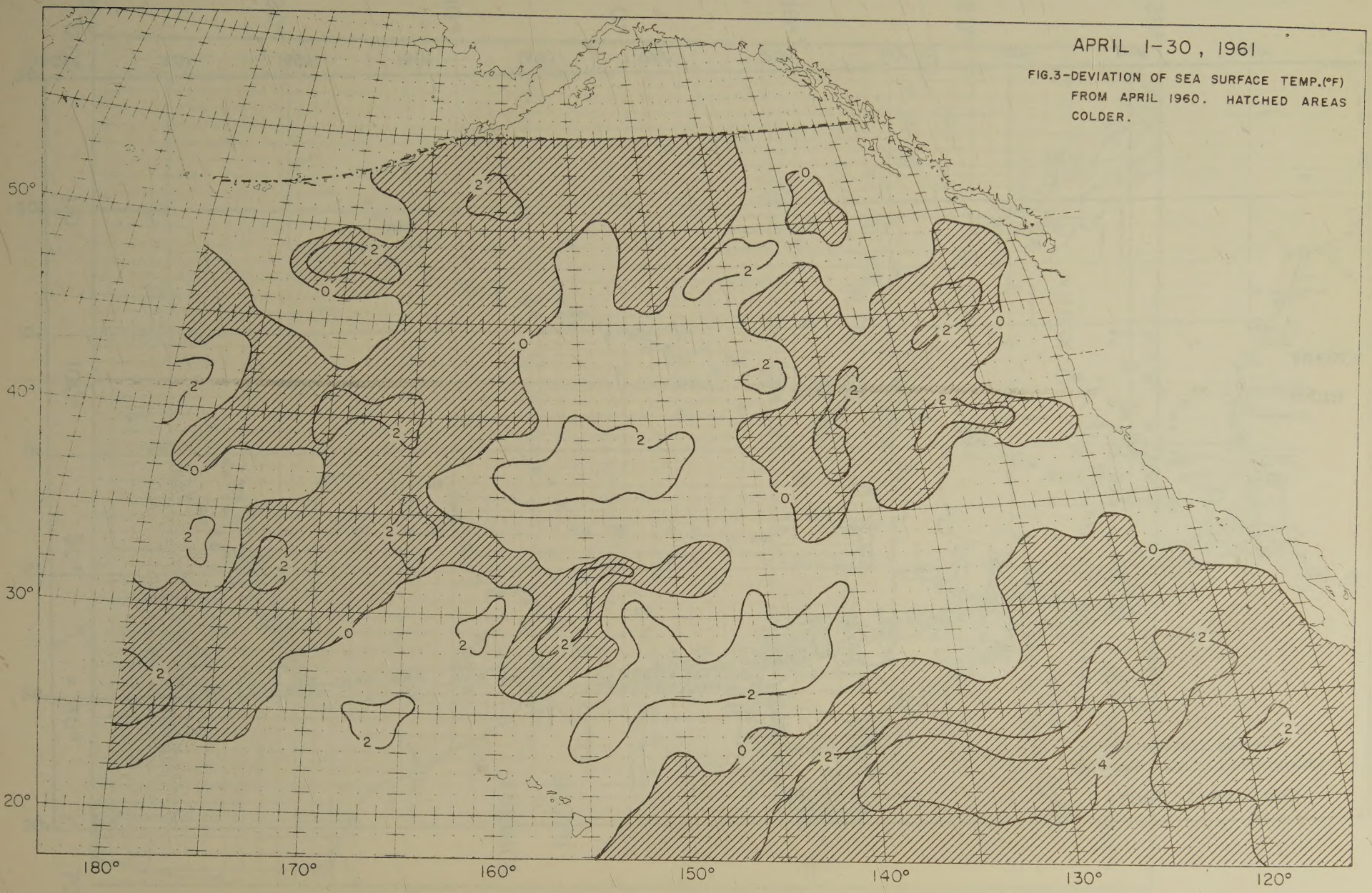
Figure 4.--Sea-surface temperatures (°F) by 1-degree squares, approximately 2000 observations. Line under temperatures indicates average of two or more observations. Numerals on shore are temperatures at coastal and light stations.

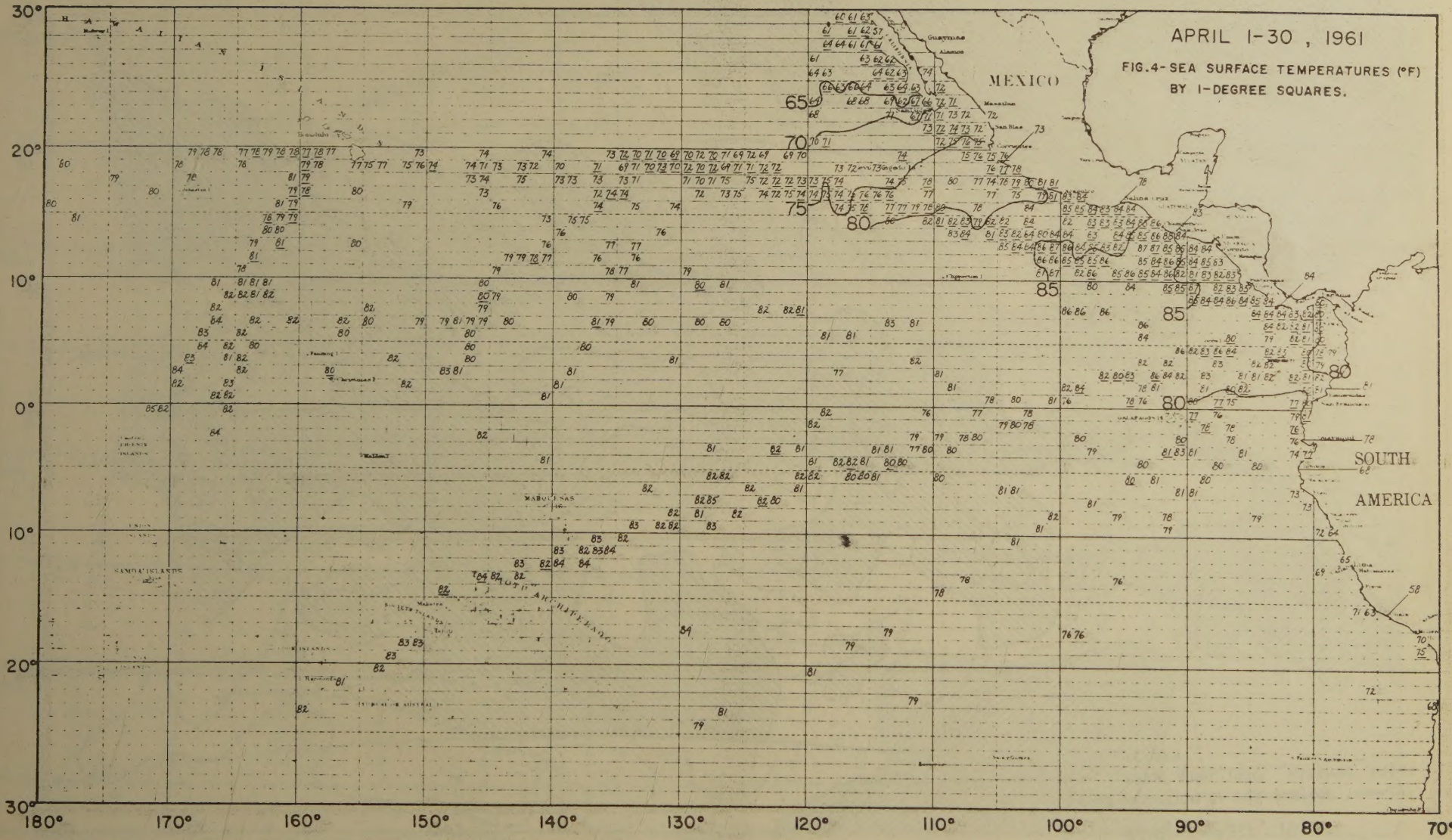
Figure 5.--Deviation of sea-surface temperatures (°F) April 1961 - April 1960 by 1-degree squares. Shaded areas colder in 1961.

James A. Renner
Fishery Research Biologist


APRIL 1-30, 1961
FIG. 1-MEAN SEA SURFACE TEMPERATURES (°F)
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°


APRIL 1-30, 1961
FIG.2-DEVIATION OF SEA SURFACE TEMP.(°F) FROM LONG TERM MEAN. HATCHED AREAS COLDER.
180°
170°
160°
150°
140°
130°
120°


APRIL 1-30, 1961
FIG.3-DEVIATION OF SEA SURFACE TEMP.(°F) FROM APRIL 1960. HATCHED AREAS COLDER.
50°
40°
30°
20°
180°
170°
160°
150°
140°
130°
120°
0
2
4


APRIL 1-30, 1961
FIG.4-SEA SURFACE TEMPERATURES (°F)
BY 1-DEGREE SQUARES.
MEXICO
SOUTH
AMERICA
30°
20°
10°
0°
10°
20°
30°
180°
170°
160°
150°
140°
130°
120°
110°
100°
90°
80°
70°

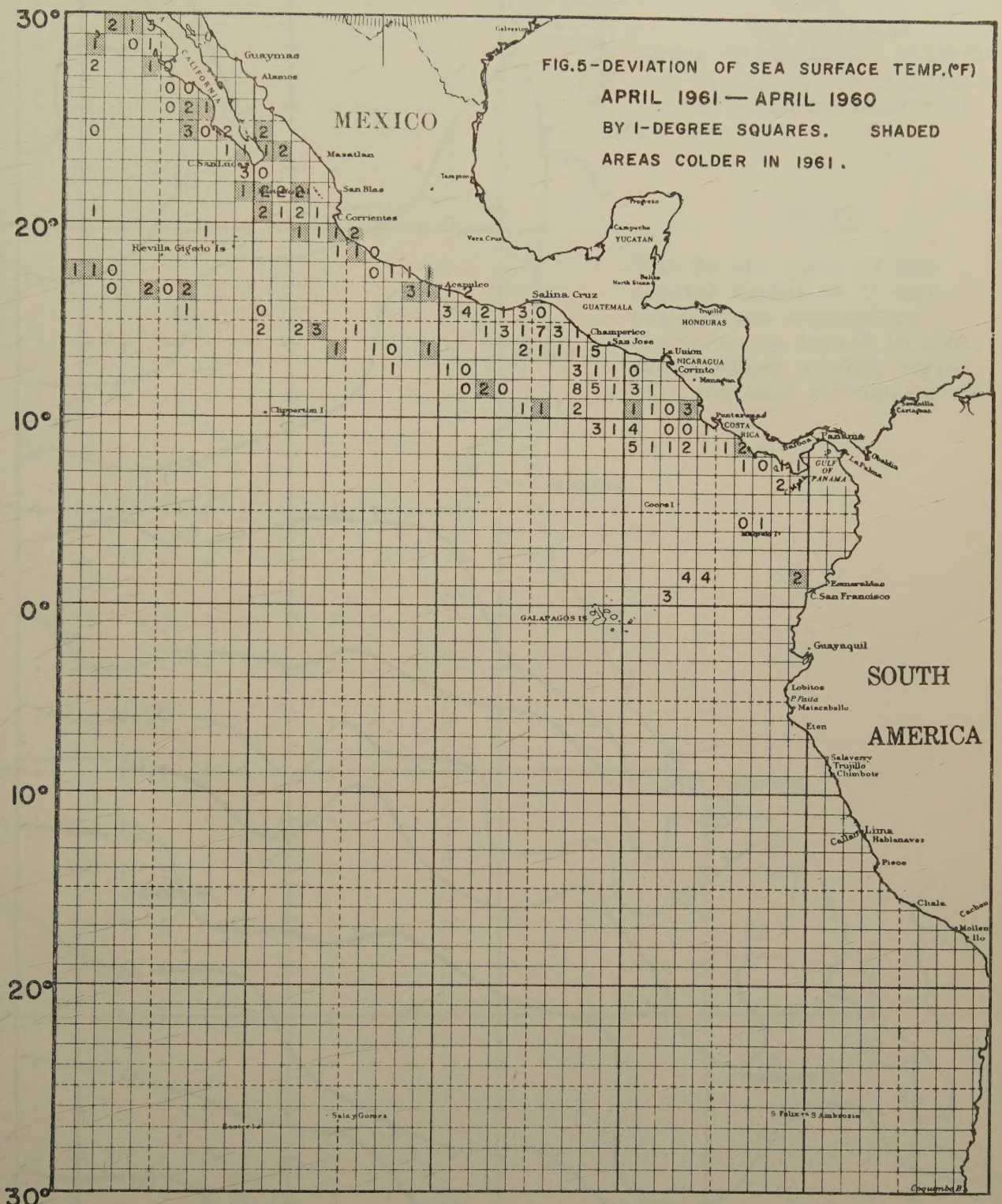
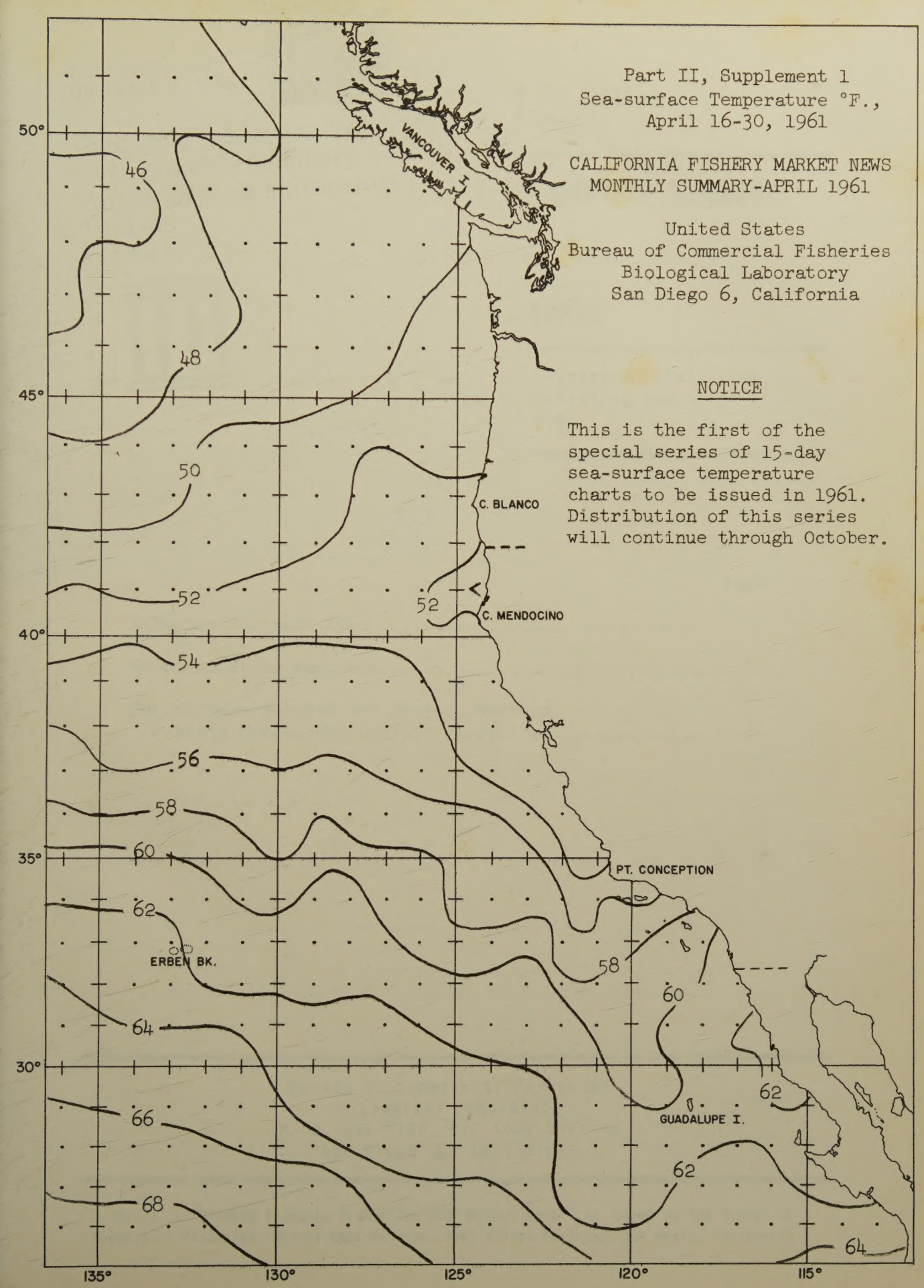


FIG. 5 - DEVIATION OF SEA SURFACE TEMP. (°F)
APRIL 1961 — APRIL 1960
BY 1-DEGREE SQUARES. SHADED
AREAS COLDER IN 1961.
MEXICO
SOUTH
AMERICA
GUATEMALA
HONDURAS
NICARAGUA
COSTA
RICA
GULF OF PANAMA
GALAPAGOS IS
Guaymas
Alamos
Mazatlan
San Blas
Corrientes
Acapulco
Salina Cruz
Champerico
San Jose
Le Union
Corinto
Panama
Guayaquil
Lobitos
Eten
Salaverry
Trujillo
Chimbote
Lima
Callao
Pisco
Chala
Mollendo
Arica
Iquique
30°
20°
10°
0°
10°
20°
30°
120°
110°
100°
90°
80°
70°




Part II, Supplement 1
Sea-surface Temperature °F.,
April 16-30, 1961

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MONTHLY SUMMARY-APRIL 1961

United States
Bureau of Commercial Fisheries
Biological Laboratory
San Diego 6, California

NOTICE

This is the first of the special series of 15-day sea-surface temperature charts to be issued in 1961. Distribution of this series will continue through October.